

REMARKS

In this Amendment, Applicants amend the drawings, specifically Figs. 16U, 16V, 16W, and 16X, and amend the corresponding description in the specification. Upon entry of this amendment, claims 30 – 38 are pending and under current examination.

Regarding the Final Office Action:

In the Final Office Action, the Examiner repeated the objection to the drawings; repeated the rejection of claims 30 – 36 under 35 U.S.C. § 112, second paragraph as indefinite; repeated the rejection of claims 37 and 38 under 35 U.S.C. § 112, second paragraph as indefinite; repeated the rejection of claims 30 – 36 under 35 U.S.C. § 102(e) as anticipated by Hsu, et al. (U.S. Patent No. 5,482,888); and repeated the rejection of claims 37 and 38 under 35 U.S.C. § 102(e) as anticipated by “Applicant’s Prior Art (Fig. 2b).”

Applicants respectfully traverse the objection and rejections, as detailed above, for the following reasons.

Regarding the Advisory Action:

In the Advisory Action, the Examiner referred to the recitation “a pair of thin films formed by epitaxial growing a semiconductor on one major surface of said substrate” in Applicants’ claim 37, and alleged that claim 37 is a product-by-process claim. The Examiner maintains that, for this reason, the rejection stands in regard to the rejection of claims 37 and 38 under 35 U.S.C. § 112, second paragraph. In response Applicants note that, since the film formed by epitaxial growth is a single crystalline film, in reciting “a pair of thin films,” claim 37 is not a product-by-process claim. Furthermore, Applicants traverse the Examiner’s characterization of claim 37 as including “[a] limitation is a process claim” for at least the same reasons.

The Examiner's remaining comments made in the Advisory Action will be addressed below in the context of a full response to the Final Office Action.

Regarding the Objection to the Drawings and the Rejections of Claims 30 – 38 under 35 U.S.C. § 112, 2nd paragraph:

The Examiner repeated the objection to the drawings under 37 C.F.R. § 1.83(a) (Final Office Action, p. 2). In response, and supplemental to the arguments presented in the Request for Reconsideration after Final of January 28, 2004, Applicants amend Figs. 16U, 16V, 16W, 16X, and the corresponding description in the specification, to assign different reference designations to gate electrode 113 and gate wiring layer 113, respectively. In the amended Figures and corresponding description, "gate electrode 113" is now "gate electrode 113GE," and "gate wiring layer 113" is now "gate wiring layer 113GW."

Thus, the semiconductor device shown in Fig. 16X comprises a substrate (101), a device isolation insulating film (106) formed on one major surface of the substrate (101), a gate electrode (113) formed on the major surface of the substrate (101), a gate wiring layer (113GW) formed in the device isolation insulating film (106) and connected to the gate electrode (113GE), a source electrode (135) and a drain electrode (135) arranged on the major surface of the substrate (101) to face each other via the gate electrode (113GE), and an insulating film (132) covering bottom and side surfaces of each of the gate electrode (113GE) and the gate wiring layer (113GW). Also, in the semiconductor device shown in Fig. 16X, the gate electrode (113GE), the gate wiring layer (113GW), the source electrode (135), and the drain electrode (135) have upper surface levels equal to or lower than an upper surface level of the device isolation insulating film (106). It is thus evident that every feature of claim 30 is supported by Fig. 16X, for example.

Thus, of the components in Fig. 16X referenced formerly by only “113,” the portion located between the source and drain diffusion layers 130 is a gate electrode 113GE, and the remaining portion is a gate wiring layer 113GW.

Therefore, Applicants deem the objection to the drawings and the 35 U.S.C. § 112, second paragraph, rejections overcome, as the drawings and related description fully comply with 37 C.F.R. § 1.84(p)(4) (“the same reference character must never be used to designate different parts”) (*See also* M.P.E.P. § 608.02). Applicants therefore respectfully deem the objection to the drawings and the rejections of claims 30 – 38 overcome. Claims 30 – 38 fully comply with the requirements of 35 U.S.C. § 112, second paragraph, and Applicants accordingly request withdrawal of the rejection. Applicants also request that the replacement drawing sheet be made of official record in the above-identified patent application. If the drawing for any reason is not in full compliance with the pertinent statutes and regulations, please so advise the undersigned.

Regarding the Rejection of Claims 30 – 36 under 35 U.S.C. § 102(e):

Applicants again respectfully traverse the rejection of claims 30 – 36 under 35 U.S.C. § 102(e) as anticipated by Hsu, and again note that the incorrect statutory subsection was used as a grounds for rejection. *See* Amendment of June 30, 2003, pp. 11 – 12.

In order to properly establish that Hsu anticipates Applicants’ claimed invention under 35 U.S.C. § 102, each and every element of each of the claims in issue must be found, either expressly described or under principles of inherency, in that single reference. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” *See* M.P.E.P. § 2131, 8th Ed., Rev. 1 (Feb. 2003), p. 2100-70, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). Regarding the 35

U.S.C. § 102(e) rejection, Hsu does not teach each and every element of Applicants' present invention as claimed.

The Examiner incorrectly alleged that Hsu's Fig. 2H teaches each and every element of Applicants' claimed invention (Office Action, p. 5). In contrast, however, Applicants note that Hsu does not disclose at least Applicants' claimed "said gate electrode, said gate wiring layer, said source electrode, and said drain electrode have upper surface levels equal to or lower than an upper surface level of said device isolation insulating film" (claim 30). It is clear from Hsu's Fig. 2H, for example, that contact electrode 60, electrode 62, and electrode 67 all have upper surface levels *above* field oxide (FOX) 54. *See* Hsu, for example, col. 5, l. 64 – col. 6, l. 60.

Thus, since Hsu does not disclose each and every element of Applicants' independent claim 30, Hsu does not anticipate Applicants' claimed invention. In addition to Hsu not anticipating the present invention, Hsu does not disclose an identical invention, let alone in as complete detail as contained in Applicants' independent claim 30. Applicants therefore submit that the Examiner has not met these essential requirements of anticipation for a proper 35 U.S.C. § 102(e) rejection.

Therefore, Applicants submit that independent claim 30 is allowable, for the reasons already argued above. In addition, dependent claims 31 – 36 are also allowable at least by virtue of their dependence from allowable base claim 30. Therefore, Applicants respectfully submit that the improper 35 U.S.C. § 102(e) rejection of claims 30 – 36 should be withdrawn.

Regarding the Rejection of Claims 37 and 38 under 35 U.S.C. § 102(e):

Applicant respectfully traverses the rejection of claims 37 and 38 under 35 U.S.C. § 102(e) as anticipated by "Applicant's Prior Art (Fig. 2b)" (Final Office Action, p. 4).

The requirements for a proper 35 U.S.C. § 102(e) rejection have already been set forth. Regarding the 35 U.S.C. § 102(e) rejection, “Applicant’s Prior Art (Fig. 2b)” (“APA”) does not teach each and every element of Applicants’ present invention as claimed.

Applicants note that Fig. 2B does not disclose at least “a pair of thin films formed by epitaxial growing a semiconductor on one major surface of said substrate, and arranged on two sides of said gate wiring layer” (claim 37), and that the reference numeral 5 in Fig. 2B is the surface region of the substrate, and is not formed by epitaxial semiconductor growth on the substrate.

Thus, since APA does not disclose each and every element of Applicants’ independent claim 37, APA does not anticipate Applicants’ claimed invention. In addition to APA not anticipating the present invention, APA does not disclose an identical invention, let alone in as complete detail as contained in Applicants’ independent claim 37. Applicants therefore submit that the Examiner has not met these essential requirements of anticipation for a proper 35 U.S.C. § 102(e) rejection.

Therefore, Applicants submit that independent claim 37 is allowable, for the reasons already argued above. In addition, dependent claim 38 is also allowable at least by virtue of its dependence from allowable base claim 37. Therefore, Applicants respectfully submit that the improper 35 U.S.C. § 102(e) rejection of claims 37 and 38 should be withdrawn.

Conclusion:

In making various references to the specification and drawings set forth herein, it is understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments described in the specification and illustrated in the drawings. Rather,

Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation, and applicable case law.

In view of the foregoing, Applicants request the Examiner's reconsideration of the application and submit that the objections and rejections detailed above should be withdrawn.

This Amendment should allow for immediate and favorable action by the Examiner. Applicants submit that pending claims 30 – 38 are in condition for allowance, and request a favorable action.

Should the Examiner continue to dispute the patentability of the claims after consideration of this Amendment, Applicants encourage the Examiner to contact Applicants' undersigned representative by telephone to discuss any remaining issues or to resolve any misunderstandings. Applicants' undersigned representative would welcome the opportunity to discuss the merits of the present invention with the Examiner if telephone communication will aid in advancing prosecution of the present application.

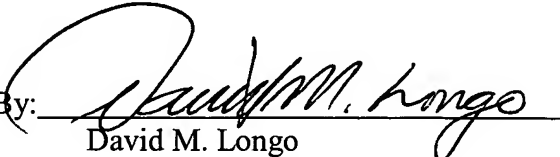
Please grant any extensions of time under 37 C.F.R. § 1.136 required in entering this response. If there are any fees due under 37 C.F.R. § 1.16 or 1.17, including any fees required

for an extension of time under 37 C.F.R. § 1.136, please charge such fees to our deposit account
06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: April 28, 2004

By: 
David M. Longo
Reg. No. 53,235

/direct telephone: (202) 408-4489/